

The CNS MOVING VOICE program: Implementation of a dual voice and physical exercise program for Parkinson disease - an applicability study.

Rita Loureiro¹, Josefa Domingos^{1,2}, Diana Peralta¹, John Dean³, Catarina Godinho^{1,2,4}, Joaquim J. Ferreira^{1,2}

¹CNS-Campus Neurológico Sênior, Portugal; ²Clinical Pharmacology Unit, Instituto de Medicina Molecular, Faculty of Medicine, University of Lisbon, Portugal; ³Davis Phinney Foundation for Parkinson's disease, Colorado, United States; ⁴Center for Interdisciplinary Research Egas Moniz (CiiEM), Instituto Superior de Ciências da Saúde Egas Moniz, Monte de Caparica, Portugal

BACKGROUND

There is growing evidence for the positive benefits of non-pharmacological interventions, such as physiotherapy and speech therapy for Parkinson's disease (PD). Combining such interventions may be a new potential intervention which also comes in line with the impending positive evidence on multitask training. Yet, translating the evidence into clinical practice is still a challenge.

OBJECTIVE

To test the applicability of a rehabilitation program for people with Parkinson's disease that combines speech and motor exercises (The CNS Moving Voice program).

METHODS

The CNS Moving Voice program consisted of PD-specific voice and exercise sessions conducted by speech therapist and physiotherapist specialized in PD. The development of the exercises was based on a review of the highest level of evidence available from a variety of different sources and results from exploratory voice and physical exercise activities with individuals. The physical exercises combined with voice and speech exercises included functional activities relevant to PD. The program took place in a rehab center in Portugal for 3 months and allowed us to identify problems that arises from such exercise sessions, any changes needed and participant satisfaction outcomes.

RESULTS

Five participants were included, with a diagnose of PD, Hoehn & Yahr I-III, with mean age of 68 years and independently. Ten sessions were done during 3 months, once per week, one-hour sessions in a group format. During the pilot sessions, modifications to the exercises included adjustments to type of physical activities, length, use of music, time for learning, and group voice and physical interaction activities applied.

Risk of falling had to be continuously monitored by physiotherapist, especially in standing and gait activities. All participants completed the study with no adverse events reported. Attendance rate was high with all participants coming to more than 95% of the classes.

A satisfaction questionnaire at three months showed participants enjoyed themselves and where happy with the session format and social interaction it created.

CONCLUSION

The combination of the therapies was safe and acceptable to people with PD. Ultimately, the ability to identify or create programs most likely to benefit to people with PD will promote the better use of combined speech and exercise therapies in PD rehabilitation programmes.